

## WHAT IS CLAIMED IS:

5 1. In a graphite material for the negative electrode of a lithium ion secondary cell which material is capable of occluding or releasing lithium ions, the improvement comprising that said graphite material absorbs or is coated with a surface active effect material of at least one member selected from the group consisting of starch derivatives having a basic structure of  $C_6H_{10}O_5$ , viscous polysaccharides having a basic structure of  $C_6H_{10}O_5$ , water-soluble cellulose derivatives having a basic structure of  $C_6H_{10}O_5$  and water-soluble  
10 synthetic resins.

15 2. The graphite material for the negative electrode of a lithium ion secondary cell as claimed in Claim 1, wherein said graphite material for the negative electrode further contains at least one alkali metal element or alkaline earth metal element selected from the group consisting of lithium, calcium, magnesium, sodium and potassium.

20 3. The graphite material for the negative electrode of a lithium ion secondary cell as claimed in Claim 2, wherein the content of said alkali metal element or alkaline earth metal element is in the range of 50 to 30,000 ppm on the basis of said graphite material.

25 4. A method for producing a graphite material for the negative electrode of a lithium ion secondary cell, which method comprises the steps of: introducing said graphite material being capable of occluding or releasing lithium ions, into an aqueous solution of a surface active effect material of at least one member selected from the group consisting of starch derivatives having a basic structure of  $C_6H_{10}O_5$ , viscous polysaccharides having a basic structure of  $C_6H_{10}O_5$ , water-soluble cellulose derivatives having a basic structure of  $C_6H_{10}O_5$  and water-soluble synthetic resins; dispersing by stirring to obtain a treating liquid; filtering said treating liquid; and drying; thereby

producing a graphite material which adsorbs or be coated with 0.01 to 10 wt. % of said surface active effect material on the surfaces of particles of said graphite material.

5 5. The method for producing a graphite material for the negative electrode of a lithium ion secondary cell as claimed in Claim 4, wherein at least one compound of alkali metal elements or alkaline earth metal elements selected from the group consisting of lithium, calcium, magnesium, sodium and potassium, is added into said aqueous solution of surface active effect material or into the water used for preparing said aqueous solution.

10 6. The method for producing a graphite material for the negative electrode of a lithium ion secondary cell as claimed in Claim 4, wherein said graphite material treated with said surface active effect material is further treated with an aqueous solution of at least one compound of alkali metal elements or alkaline earth metal elements selected from the group consisting of  
15 lithium, calcium, magnesium, sodium and potassium.

Add 32  
Add 11